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concl'd at least [50%] 90% identity with a polynucleotide selected from the group consisting of SEQUENCE ID NOS 1-7, and [fragments or] full complements thereof; and

(b) detecting the presence of target [BS274] polynucleotides from the test sample which bind to said [BS274-] specific polynucleotide.

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4. (Amended) A method for detecting [BS274] mRNA in a test sample, said method comprising:

(a) performing reverse transcription on said sample using at least one primer in order to produce cDNA;

(b) amplifying the cDNA obtained from step (a) using [BS274] oligonucleotides as sense and antisense primers to obtain [BS274] an amplicon; and

(c) detecting the presence of said [BS274] amplicon, wherein the [BS274] oligonucleotides utilized in steps (a) and (b) have at least [50%] 90% identity with a sequence selected from the group consisting of SEQUENCE ID NOS 1-7, and [fragments or] full complements thereof.

7. (Amended) A method of detecting a target [BS274] polynucleotide in a test sample suspected of containing said target polynucleotide, comprising:

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(a) contacting the test sample with at least one [BS274] oligonucleotide as a sense primer and with at least one [BS274] oligonucleotide as an anti-sense primer and amplifying to obtain a first stage reaction product;

(b) contacting said first stage reaction product with at least one other [BS274] oligonucleotide to obtain a second stage reaction product, with the proviso that the other [BS274] oligonucleotide is located 3' to the [BS274] oligonucleotides utilized in step (a) and is complementary to said first stage reaction product; and

(c) detecting said second stage reaction product as an indication of the presence of the target [BS274] polynucleotide, wherein the [BS274] oligonucleotides utilized in steps (a) and (b) have at least [50%] 90% identity with a sequence selected from the group consisting SEQUENCE ID NOS 1-7, and [fragments or] full complements thereof.

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11. (Amended) A test kit useful for detecting [BS274] polynucleotide in a test sample, said test kit comprising a container containing at least one [BS274] polynucleotide having at least [50%] 90% identity with a sequence selected from the group consisting of SEQUENCE ID NOS 1-7, and [fragments or] full complements thereof.

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Amended

12. (Amended) A purified polynucleotide [derived from a BS274 nucleic acid molecule], wherein said polynucleotide has at least [50%] 90% identity with a sequence selected from the group consisting of [(a)] SEQUENCE ID NOS 1-3, 6, 7; [(b)] fragments of SEQUENCE ID NOS 1-5;] and [(c)] full complements [of (a) or (b)] thereof.

13. (Amended) The polynucleotide of claim 12, wherein said polynucleotide hybridizes selectively to a [BS274] nucleic acid sequence.

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18. (Amended) The polynucleotide of claim 12, wherein said polynucleotide comprises a sequence encoding at least one [BS274] epitope.

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21. (Amended) A recombinant expression system comprising a nucleic acid sequence that includes an open reading frame [derived from a BS274 polynucleotide], wherein said open reading frame is operably linked to a control sequence compatible with a desired host, and said nucleic acid sequence has at least [50%] 90% identity with a sequence selected from the group consisting of SEQUENCE ID NOS 1-7, [fragments or] complements thereof.

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38. A cell transfected with a nucleic acid sequence encoding at least one [BS274] epitope, wherein said nucleic acid sequence is selected from the group consisting of SEQUENCE ID NOS 1-7, and [fragments or] complements thereof

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45. (Amended) The polynucleotide of claim 12, wherein said polynucleotide codes for a [BS274] protein which comprises an amino acid sequence having at least [50%] 90% identity to SEQUENCE ID NO 17.

46. (Amended) The polynucleotide of claim 12, wherein said polynucleotides comprises DNA having at least [50%] 90% identity with SEQUENCE ID NO 6 or SEQUENCE ID NO 7.

47. (Amended) The method of claim 1, wherein the presence of said target [BS274] polynucleotide in the test sample is indicative of breast disease.

REMARKS

Claims 1-22, 38, 41, and 45-49 are rejected by the Examiner under 35 U.S.C. 101 alleging the claimed invention is not supported by either a specific or substantial asserted utility or a well established utility.

Applicant vigorously disagrees. BS274 is a novel polynucleotide which is predominantly found in the female breast. As determined in Example 1 of the instant